

WHAT IS CLAIMED IS

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1. A tracking control method comprising the steps of:

(a) measuring an optimum offset by measuring a light beam irradiation state of a light beam while 10 offsetting a tracking target position of the light beam on a recording medium so that an optimum light beam irradiation state is obtained at the tracking target position; and

(b) carrying out a tracking control by setting 15 the optimum offset measured by said step (a).

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2. The tracking control method as claimed in claim 1, further comprising the step of:

(c) judging a type of the recording medium, 25 said step (a) being carried out when said step (c) judges that the recording medium is a high-density recording medium.

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3. The tracking control method as claimed in claim 1, wherein said step (a) detects the light beam irradiation state based on one parameter selected from a group consisting of a read error, a reproduced signal amplitude and an amount of focus 35 control.

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4. The tracking control method as claimed in claim 1, wherein said step (a) is carried out in a state where a waveform interference from an adjacent track is easily generated.

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10 5. The tracking control method as claimed in claim 1, wherein said step (a) is carried out for every predetermined radial position on the recording medium and/or for every one revolution angle of the recording medium.

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20 6. The tracking control method as claimed in claim 1, wherein said step (a) is carried out when a difference between previous and present measurement execution times is greater than or equal to a prescribed time and/or when a temperature difference between previous and present measurements is greater than or equal to a prescribed temperature.

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7. The tracking control method as claimed 30 in claim 1, further comprising:

35 (c) carrying out a reproducing process again by changing the optimum offset of the tracking target position in a positive or negative direction, when an error is generated during a reproducing process with respect to the recording medium.

8. The tracking control method as claimed in claim 7, wherein said step (c) changes the optimum offset of the tracking target position in the positive or negative direction depending on a 5 success rate of the reproducing process which is carried out again.

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9. The tracking control method as claimed in claim 1, further comprising the step of:
(c) setting an optimum offset depending on at least one of an object of a seek process and a 15 target address on the recording medium.

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10. A storage apparatus comprising:
offset measurement control means for measuring an optimum offset by measuring a light beam irradiation state of a light beam while offsetting a tracking target position of the light beam on a 25 recording medium so that an optimum light beam irradiation state is obtained at the tracking target position; and
tracking control means for carrying out a tracking control by setting the optimum offset which 30 is updated.

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11. The storage apparatus as claimed in claim 10, further comprising:
judging means for judging a type of the

recording medium,

 said offset measurement control means measuring
 the optimum offset when said step judging means
 judges that the recording medium is a high-density
5 recording medium.

10 12. A storage apparatus comprising:

 a measuring section which measures an optimum
 offset by measuring a light beam irradiation state
 of a light beam while offsetting a tracking target
 position of the light beam on a recording medium so
15 that an optimum light beam irradiation state is
 obtained at the tracking target position; and
 a control section which carries out a tracking
 control by setting the optimum offset measured by
 said measuring means.

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25 13. The storage apparatus as claimed in
 claim 12, further comprising:

 a judging section which judges a type of the
 recording medium,
 said measuring section measuring the optimum
 offset when said judging section judges that the
30 recording medium is a high-density recording medium.

35 14. The storage apparatus as claimed in
 claim 12, wherein said measuring section detects the
 light beam irradiation state based on one parameter

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selected from a group consisting of a read error, a reproduced signal amplitude and an amount of focus control.

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15. The storage apparatus as claimed in
claim 12, wherein said measuring section measures
10 the optimum offset in a state where a waveform
interference from an adjacent track is easily
generated.

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16. The storage apparatus as claimed in
claim 12, wherein said measuring section measures
the optimum offset for every predetermined radial
20 position on the recording medium and/or for every
one revolution angle of the recording medium.

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17. The storage apparatus as claimed in
claim 12, wherein said measuring section measures
the optimum offset when a difference between
previous and present measurement execution times is
30 greater than or equal to a prescribed time and/or
when a temperature difference between previous and
present measurements is greater than or equal to a
prescribed temperature.

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18. The storage apparatus as claimed in
claim 12, further comprising:

5 a reproducing section which carries out a
reproducing process again by changing the optimum
offset of the tracking target position in a positive
or negative direction, when an error is generated
during a reproducing process with respect to the
recording medium.

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19. The storage apparatus as claimed in
claim 18, wherein said reproducing section changes
15 the optimum offset of the tracking target position
in the positive or negative direction depending on a
success rate of the reproducing process which is
carried out again.

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20. The storage apparatus as claimed in
claim 12, further comprising:
25 a setting section which sets an optimum offset
depending on at least one of an object of a seek
process and a target address on the recording medium.

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